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SUBMISSION TO THE
ROYAL COMMISSION ON ENERGY
by the
OIL AND GAS CONSERVATION BOARD

SUPPLEMENT

C-27-3

BY THE

OIL AND GAS CONSERVATION BOARD

ALBERTA PRODUCTION AND DISPOSITION ON NATURAL GASOLINE, PROPANE, BUTANE AND SULPHUR*
(QUANTITIES IN BARRELS *QUANTITIES IN SHORT TONS)

	CUMULATIVE END OF 1947	1948	1949	1950	1951	1952	1953	1954	%	1955	%	1956	%	1957	%
<u>NATURAL GASOLINE</u>															
PRODUCTION	6,289,965	468,655	477,446	446,384	515,027	579,873	602,771	682,378	100.0	868,416	100.0	913,572	100.0	968,158	100.0
OPENING INVENTORY	-	6,781	7,160	6,234	8,679	74,510	74,679	77,108		6,632		12,445		9,213	
LOSSES & ADJUSTMENTS	-	7,267	6,602	6,067	-61,212	10,167	7,223	105,648	15.5	9,073	1.0	7,999	.9	3,081	.3
CLOSING INVENTORY	6,781	7,160	6,234	8,679	74,510	74,679	77,108	6,632		12,445		9,213		10,604	
SALES	(1)	461,009	471,770	437,872	510,408	569,537	593,119	647,206	94.8	853,530	98.3	908,805	99.5	963,686	99.5
<u>PROPANE</u>															
PRODUCTION	-	8,486	54,158	141,070	248,554	337,678	433,083	529,117	100.0	796,482	100.0	925,716	100.0	1,111,355	100.0
OPENING INVENTORY	-	-	905	503	21,137	23,930	55,746	23,956		6,149		2,947		7,032	
STORED	-	-	-	-	-	-	-	-		13,104	1.6	62,691	6.8	116,747	10.5
LOSSES & ADJUSTMENTS	-	-	1,567	-7,570	8,640	-26,454	33,273	45,458	8.6	116,627	14.6	12,337	1.3	47,811	4.3
CLOSING INVENTORY	-	905	503	21,137	23,930	55,746	23,956	6,149		2,947		7,032		8,429	
SALES	-	7,581	52,993	128,006	237,121	332,316	431,600	501,466	94.7	669,953	84.1	846,603	91.5	933,773	84.0
<u>BUTANE</u>															
PRODUCTION	-	-	-	33,906	84,527	140,228	198,401	245,189	100.0	492,051	100.0	591,638	100.0	746,309	100.0
OPENING INVENTORY	-	-	-	-	11,448	13,778	24,081	19,180		4,275		3,850		4,909	
STORED	-	-	-	-	-	-	-	-		35,355	7.2	157,187	26.6	159,185	21.3
LOSSES & ADJUSTMENTS	-	-	-	21,123	55,177	50,453	104,536	55,174	22.5	48,723	9.9	14,931	2.5	188,512	25.3
CLOSING INVENTORY	-	-	-	11,448	13,778	24,081	19,180	4,275		3,850		4,909		4,979	
SALES	-	-	-	1,335	27,020	79,472	98,472	204,920	83.6	408,398	83.0	418,461	70.7	358,914	48.1
<u>PROPANE-BUTANE MIX</u>															
TRANSFER FROM PRODUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-	51,255(2)	100.0
OPENING INVENTORY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LOSSES & ADJUSTMENTS	-	-	-	-	-	-	-	-	-	-	-	-	-	98	
CLOSING INVENTORY	-	-	-	-	-	-	-	-	-	-	-	-	-	109	
SALES TO MISCIBLE FLOOD OPERATION	-	-	-	-	-	-	-	-	-	-	-	-	-	51,048	99.6
<u>SULPHUR</u>															
PRODUCTION	-	-	-	-	-	8,931	18,298	22,320	100.0	29,093	100.0	33,464	100.0	100,706	100.0
OPENING INVENTORY	-	-	-	-	-	18,673	22,901	80,517		8,144		11,405		9,637	
LOSSES & ADJUSTMENTS	-	-	-	-	-	478	-55,390	76,028		-144		448		-412	
CLOSING INVENTORY	-	-	-	-	-	22,901	80,517	8,144		11,405		9,637		17,428	
SALES	-	-	-	-	-	4,225	16,072	18,665	83.6	25,976	89.3	34,784	100.0	93,327	92.6

(1) PRODUCTION LESS INVENTORY EQUAL SALES.

(2) INCLUDED IN PROPANE AND BUTANE PRODUCTION.

FEBRUARY 6, 1958

MONTH	ALBERTA PRODUCTION 1955 (B/D)			ALBERTA MARKETS 1955 (B/D)							
	LIGHT AND MEDIUM	HEAVY	TOTAL	U.S.A. WEST	MARINE* TERMINAL	B.C.	ALBERTA	SASK.	MAN.	ONT.	U.S.A. EAST TOTAL
JANUARY	284,484	4,746	289,230	13,565	-	56,866	59,388	29,983	10,996	102,706	6,742 280,245
FEBRUARY	285,332	5,185	290,517	14,578	-	49,094	58,732	32,353	21,422	94,269	5,096 275,544
MARCH	271,816	4,527	276,343	27,482	-	47,463	51,877	35,382	18,358	70,621	5,816 256,999
APRIL	221,909	2,989	224,898	25,867	-	49,987	39,364	36,072	18,546	74,404	6,169 250,409
MAY	272,836	4,800	277,636	27,411	-	54,888	39,534	36,611	16,301	108,081	1,457 284,283
JUNE	311,167	5,119	316,286	23,116	-	49,696	62,082	42,699	18,024	112,077	5,992 313,686
JULY	344,881	5,357	350,238	27,213	-	58,167	63,240	40,140	19,384	115,256	6,620 330,020
AUGUST	322,794	5,507	328,301	34,443	-	54,984	64,661	39,647	15,091	99,836	9,647 318,309
SEPTEMBER	304,481	4,942	309,420	37,509	-	56,542	63,984	29,386	19,211	92,111	5,481 304,224
OCTOBER	342,060	5,293	347,353	45,923	-	36,911	60,481	29,691	16,943	114,114	9,671 313,734
NOVEMBER	348,951	5,150	354,101	42,734	-	57,169	59,997	29,451	9,001	95,632	21,023 315,007
DECEMBER	344,393	4,536	348,929	51,858	-	61,761	58,682	37,795	17,154	113,866	25,404 366,520
YEAR	304,592	4,846	309,438	31,135	-	52,953	56,986	34,961	16,669	99,521	9,120 301,345
MONTH	ALBERTA PRODUCTION 1956 (B/D)			ALBERTA MARKETS 1956 (B/D)							
	LIGHT AND MEDIUM	HEAVY	TOTAL	U.S.A. WEST	MARINE* TERMINAL	B.C.	ALBERTA	SASK.	MAN.	ONT.	U.S.A. EAST TOTAL
JANUARY	373,825	4,806	378,631	48,940	3,835	55,777	66,186	38,497	14,483	119,469	32,329 379,516
FEBRUARY	398,637	5,097	403,734	69,101	-	60,728	61,373	40,952	13,859	112,169	36,131 394,313
MARCH	392,851	5,041	397,892	69,898	2,743	58,605	57,772	36,970	14,397	107,393	40,448 388,226
APRIL	335,699	3,427	339,126	24,409	7,032	58,121	50,255	37,664	10,624	125,907	34,825 348,837
MAY	316,164	5,662	321,826	26,096	15,740	57,649	50,514	27,950	12,391	106,000	32,541 328,881
JUNE	365,026	6,205	371,231	30,957	4,061	63,909	67,857	35,384	7,998	113,809	28,433 352,408
JULY	380,830	6,825	387,655	23,915	27,427	66,610	70,312	25,283	11,302	141,724	31,223 397,796
AUGUST	431,363	5,916	437,279	57,040	31,935	64,715	71,648	32,653	18,446	134,111	25,950 436,498
SEPTEMBER	411,081	6,912	417,993	61,965	32,812	62,814	68,246	40,865	12,970	120,861	25,617 426,150
OCTOBER	404,930	7,979	412,909	73,438	17,732	67,701	70,329	31,062	12,190	109,411	18,401 400,264
NOVEMBER	395,431	6,940	402,371	75,406	25,143	47,096	73,281	37,636	16,855	117,598	32,630 425,645
DECEMBER	428,015	6,109	434,124	69,232	34,690	53,934	66,827	38,832	11,167	125,287	26,004 425,973
YEAR	386,154	5,910	392,064	52,533	16,929	59,805	64,550	35,312	13,057	119,478	30,378 392,042
MONTH	ALBERTA PRODUCTION 1957 (B/D)			ALBERTA MARKETS 1957 (B/D)							
	LIGHT AND MEDIUM	HEAVY	TOTAL	U.S.A. WEST	MARINE* TERMINAL	B.C.	ALBERTA	SASK.	MAN.	ONT.	U.S.A. EAST TOTAL
JANUARY	435,731	6,111	441,842	84,859	33,369	71,150	73,012	43,802	11,531	87,524	23,065 418,312
FEBRUARY	412,355	6,454	418,809	75,219	26,608	75,716	65,710	44,907	12,720	100,095	17,859 418,834
MARCH	396,320	5,957	402,277	68,535	46,368	75,891	62,501	44,979	14,653	92,018	22,173 427,118 (1)
APRIL	400,902	5,774	406,676	83,469	44,485	72,606	55,622	31,574	14,318	78,833	14,684 395,591
MAY	411,850	6,555	418,405	76,338	59,324	65,013	57,034	32,998	14,362	125,842	19,346 450,257 (1)
JUNE	400,875	6,504	407,379	58,861	14,071	66,596	67,272	49,590	22,008	113,426	17,474 409,298 (1)
JULY	412,129	7,303	419,432	94,002	2,778	72,302	75,100	37,335	20,050	77,991	14,956 394,514
AUGUST	373,961	7,474	381,435	86,068	3,898	71,933	75,626	40,029	24,360	107,257	17,926 427,097 (1)
SEPTEMBER	339,107	7,861	346,968	74,146	4,047	59,049	67,410	37,286	19,826	82,327	10,514 354,605 (1)
OCTOBER	299,138	10,250	309,388	68,191	-	39,959	60,260	31,101	14,159	105,087	9,494 328,251 (1)
NOVEMBER	274,750	6,005	280,755	54,955	-	25,094	69,595	35,596	15,284	68,674	14,998 284,196 (1)
DECEMBER	283,903	5,006	288,909	65,388	-	38,587	52,707	35,797	13,440	73,192	17,807 296,918 (1)
YEAR (APPROX.)	370,085	6,771	376,856	74,230	19,564	61,097	64,302	38,702	16,412	92,712	16,707 383,726
APPROX. CHANGE 1957 OVER 1956	-	-	-15,117	+21,697	+2,635	+1,292	-248	+3,390	+3,355	-26,766	-13,671 -8,316

(1) EXCESS DELIVERIES OVER PRODUCTION REPRESENTS DELIVERIES OUT OF INVENTORIES.

* MARINE TERMINAL - TANKER LOADINGS.

GROWTH IN THE PRODUCING OIL POTENTIAL, ECONOMICAL ALLOWANCE AND DEMAND FOR ALBERTA OIL

LIGHT AND MEDIUM OIL B/D

HEAVY OIL B/D

YEAR & MONTH	EST. AVE. No. OF WELLS	DEMAND	ALLOWABLE	WELLS ACTUALLY PRODUCED	WELLS CAPABLE OF PRODUCT- ION	PRODUCTION	ADJUSTED POTENTIAL	ALLOW. OF POT.	MARGINAL	ECONOMIC & MARGINAL	ALLOCA. FACTOR	DEMAND	ALLOW- ABLE	WELLS ACT- UALLY PROD.	WELLS CAP- ABLE OF PROD.	PRODUCT- ION	ADJUST. POTENT.	ECONOMIC	TOTAL PROVINCIAL POTENTIAL	TOTAL \$ ALLOW. OF POT.
DEC. 1951	1681	76,250	76,445	1595	1714	75,018	184,953	41.3	10,778	61,331	0.0857	5,465	5,410	185	281	3,680	4,250	3,785	189,203	43.3
JAN. 1952	1775	89,905	91,080	1639	1776	87,336	195,703	46.5	11,088	65,614	0.1316	5,555	5,385	152	284	3,322	4,070	3,785	199,773	48.3
FEB.	1842	89,528	91,598	1760	1842	88,938	207,946	44.0	11,012	68,575	0.1064	5,555	5,505	174	287	4,100	4,615	3,785	212,561	45.7
MAR.	1885	71,312	72,373	1798	1885	70,585	198,037	36.5	10,284	68,537	0.0148	5,605	5,375	198	290	3,704	4,590	3,785	202,627	38.4
APR.	1928	73,279	77,494	1813	1927	74,215	203,266	38.1	10,956	70,124	0.0164	5,505	5,505	140	290	2,714	4,590	3,785	207,856	39.9
MAY	1984	137,898	139,072	1872	1985	135,707	207,701	67.0	10,257	71,031	0.3387	5,505	5,505	167	296	3,350	4,590	3,785	212,291	68.1
JUNE	2049	149,850	150,615	1934	2049	148,209	209,682	71.8	10,090	72,852	0.3858	5,505	5,505	188	300	4,011	4,590	3,785	214,272	72.9
JULY	2127	151,010	151,651	1921	2127	149,140	177,690	85.3	9,653	74,553	0.4550	6,005	5,820	185	304	3,829	4,590	4,100	182,280	86.3
AUG.	2185	152,700	162,629	2053	2184	161,478	183,406	88.7	0,378	76,565	0.4400	5,805	5,820	210	310	4,304	4,590	4,100	187,996	89.6
SEPT.	2247	154,675	155,296	2109	2248	153,496	190,243	81.6	8,912	79,829	0.4128	5,405	5,820	209	325	4,263	4,590	4,100	194,833	82.7
OCT.	2305	145,445	146,082	2185	2303	147,032	195,624	74.6	9,496	82,585	0.3377	5,405	5,820	210	337	4,134	4,590	4,100	200,214	75.9
NOV.	2360	131,435	132,169	2205	2360	126,298	206,447	64.0	11,190	86,038	0.2325	5,405	5,820	223	343	4,229	4,590	4,100	211,037	65.4
DEC.	2401	115,365	116,470	2291	2399	118,378	209,367	55.6	10,869	86,724	0.1443	5,105	5,405	220	339	4,064	4,615	3,800	213,982	57.0
AVERAGE	2091	121,867	123,877	1965	2090	121,734	198,759	62.3	10,349	75,252	0.2513	5,530	5,607	190	309	3,835	4,551	3,918	203,310	63.7
JAN. 1952	2445	120,450	121,379	2310	2453	119,697	214,432	56.6	11,110	88,764	0.1558	5,155	5,405	214	338	4,094	4,595	3,800	219,027	57.8
FEB.	2485	103,690	104,977	2382	2508	107,250	219,313	47.9	11,268	90,532	0.0632	5,155	5,405	216	343	4,183	4,655	3,800	223,968	49.2
MAR.	2524	108,220	109,589	2451	2583	107,055	241,772	45.3	10,805	92,732	0.0671	5,155	5,585	220	357	3,733	4,655	3,800	246,427	46.7
APR.	2604	128,218	129,735	2492	2639	120,478	249,088	52.1	11,300	96,058	0.2102	5,555	6,035	222	356	3,833	5,155	4,250	254,243	59.4
MAY	2668	176,137	177,868	2581	2721	170,606	252,131	70.5	10,105	97,363	0.3255	5,555	6,035	228	364	3,596	5,155	4,250	257,286	71.5
JUNE	2759	181,405	182,946	2626	2787	170,565	262,844	69.6	9,368	99,873	0.3217	5,655	6,235	225	370	3,795	5,155	4,250	267,999	70.6
JULY	2817	186,701	188,123	2699	2859	178,039	269,077	69.9	30,561	99,592	0.3652	5,755	6,235	237	376	4,053	5,155	4,450	274,232	70.9
AUG.	2870	188,670	190,239	2761	2946	182,636	272,951	69.7	32,260	102,322	0.3588	5,905	6,335	232	392	3,804	5,155	4,550	278,106	70.7
SEPT.	2956	189,055	191,716	2846	3018	187,095	277,563	69.1	33,084	104,950	0.3440	5,855	6,335	262	403	4,223	5,155	4,550	282,718	70.1
OCT.	3025	189,585	191,394	2892	3079	187,477	283,017	67.6	34,473	107,768	0.3292	6,005	6,435	268	411	4,070	5,205	4,650	288,222	68.6
NOV.	3110	180,265	182,208	2949	3137	174,854	272,187	66.9	37,343	110,869	0.2955	5,880	6,435	256	430	4,074	5,235	4,650	277,422	68.0
DEC.	3170	171,385	173,454	3028	3218	175,374	270,872	64.0	37,772	112,849	0.2511	6,350	6,720	284	441	4,641	5,520	4,650	276,392	65.2
AVERAGE	2786	160,315	161,969	2668	2829	156,765	257,104	63.0	22,454	100,306	0.2573	5,665	6,100	239	382	4,008	5,066	4,304	262,170	64.1
JAN. 1953	3222	153,715	154,821	3085	3275	158,193	279,962	56.5	37,067	114,459	0.1657	6,250	6,720	293	453	4,399	5,520	4,650	279,482	57.8
FEB.	3303	151,276	152,468	3133	3348	154,748	286,216	53.2	38,124	117,295	0.1370	5,950	6,465	305	459	4,901	5,565	4,350	291,781	54.5
MAR.	3386	144,955	148,231	3221	3430	147,634	303,277	48.9	38,998	122,820	0.0838	6,075	6,570	314	462	3,868	5,920	4,350	309,197	50.1
APR.	3448	169,304	177,992	3176	3475	168,571	311,738	57.1	40,702	125,986	0.1598	5,601	6,445	223	461	2,903	5,870	4,150	317,608	58.1
MAY	3487	189,626	194,590	3258	3539	185,716	322,989	60.2	38,341	125,199	0.2263	5,950	6,505	291	462	3,668	6,105	4,000	329,094	61.1
JUNE	3562	217,145	222,447	3320	3599	211,751	332,070	67.0	39,157	127,371	0.3065	6,200	6,555	319	470	4,904	6,105	4,150	338,175	67.7
JULY	3621	248,867	254,281	3390	3676	244,797	312,791	81.3	51,065	128,658	0.4593	6,800	6,940	324	479	4,356	6,055	4,650	318,846	81.9
AUG.	3690	262,150	267,960	3469	3740	252,483	313,677	85.4	48,720	128,040	0.5062	6,800	6,940	325	484	4,253	6,040	4,650	319,717	86.0
SEPT.	3759	260,400	267,331	3534	3812	256,928	324,181	82.5	49,221	130,479	0.4725	6,750	6,940	261	487	3,738	6,140	4,650	330,321	83.0
OCT.	3811	209,316	214,414	3607	3867	215,490	331,911	64.5	50,982	133,097	0.2713	6,750	6,940	289	491	4,368	6,090	4,650	338,001	65.5
NOV.	3875	229,033	234,951	3717	3941	234,875	302,335	77.7	52,264	136,346	0.3706	6,750	7,000	296	494	3,868	5,950	4,650	308,285	78.5
DEC.	3950	240,833	244,394	3747	4007	242,053	311,380	78.5	54,058	139,896	0.3922	6,750	7,000	253	497	3,564	5,950	4,850	317,330	79.2
AVERAGE	3593	206,385	211,157	3388	3642	206,103	310,544	68.0	44,892	127,471	0.2959	6,385	6,760	291	475	4,066	5,943	4,479	316,487	68.9


GROWTH IN THE PRODUCING OIL POTENTIAL, ECONOMICAL ALLOWANCE AND DEMAND FOR ALBERTA OIL

FEBRUARY 7, 1958

2.

(QUANTITIES IN BARRELS PER DAY)

LIGHT AND MEDIUM OIL												HEAVY OIL									
YEAR & MONTH	EST. AVE. NO. OF WELLS	DEMAND	ALLOWABLE	WELLS ACTUALLY PRODUCED	WELLS CAPABLE OF PRODUCTION	PRODUCTION	ADJUSTED POTENTIAL	% ALLOW. OF POT.	MARGINAL	ECONOMIC & MARGINAL	ALLOCA. FACTOR	DEMAND	ALLOW- ABLE	WELLS ACT- UALLY PROD.	WELLS CAP- ABLE OF PROD.	PRODUCT- ION	ADJUST. POTENT.	ECONOMIC	TOTAL PROVINCIAL POTENTIAL	TOTAL % ALLOW. OF POT.	
1954																					
JAN.	4026	244,847	249,600	3798	4058	240,845	319,085	78.2	55,647	143,162	0.3860	6,500	6,700	278	495	3,806	5,950	4,550	325,035	78.9	
FEB.	4065	252,668	255,485	3792	4115	248,269	325,677	78.4	56,474	145,589	0.3978	5,900	6,700	276	496	4,552	5,950	4,550	331,627	79.1	
MAR.	4117	152,031	155,353	3925	4189	176,821	323,144	48.1	58,239	146,545	0.0207	5,800	6,700	287	502	4,465	5,950	4,550	329,094	49.2	
APR.	4205	161,943	165,000	3928	4222	157,751	328,531	50.2	55,179	145,982	0.0584	6,500	6,700	253	510	3,480	5,950	4,550	334,481	51.3	
MAY	4249	216,170	219,250	3923	4259	210,002	335,358	65.4	56,734	148,203	0.2439	6,450	6,700	266	513	3,593	5,950	4,550	341,308	66.2	
JUNE	4277	249,175	252,286	3931	4282	239,631	335,941	75.1	55,430	147,532	0.3623	6,750	6,700	215	525	3,020	5,950	4,550	341,891	75.8	
JULY	4272	268,570	271,093	3968	4324	267,091	333,727	81.2	54,114	143,964	0.4456	7,150	7,050	314	529	4,756	6,000	4,850	339,727	81.9	
AUG.	4281	269,785	272,119	4030	4364	263,907	336,795	80.8	56,583	148,187	0.4339	6,950	7,150	298	529	4,298	5,950	5,150	342,745	81.5	
SEPT.	4321	265,970	269,154	4053	4403	264,716	341,187	78.9	55,883	148,843	0.4105	7,150	7,350	315	520	4,672	6,000	5,150	347,187	79.6	
OCT.	4355	248,300	251,293	4138	4438	249,075	343,661	73.1	55,982	149,801	0.3424	7,150	7,350	318	516	4,821	6,000	5,150	349,661	74.0	
NOV.	4389	237,994	242,901	4151	4478	240,699	356,290	68.2	55,312	151,167	0.2885	7,000	7,350	338	520	5,207	6,000	4,950	362,290	69.1	
DEC.	4425	270,066	273,211	4264	4547	273,629	358,792	76.1	54,891	151,652	0.3896	6,800	7,100	319	523	4,491	6,000	4,950	364,792	76.8	
AVERAGE	4249	236,485	239,729	3992	4307	236,036	336,516	71.2	55,872	147,552	0.3150	6,675	6,963	290	515	4,263	5,971	4,792	342,487	72.0	
1955																					
JAN.	4556	280,645	284,159	4349	4640	284,484	376,529	75.5	55,058	155,731	0.4028	7,175	7,200	333	523	4,746	6,000	4,950	382,529	76.2	
FEB.	4637	281,574	282,998	4403	4711	285,332	390,170	72.5	54,658	158,556	0.3666	6,700	7,000	322	524	5,185	5,950	4,850	396,120	73.2	
MAR.	4711	270,381	271,001	4505	4791	271,816	404,077	67.1	55,198	162,089	0.3103	6,750	7,200	314	527	4,527	5,950	4,950	410,027	67.8	
APR.	4775	236,885	238,252	4448	4818	221,909	416,901	57.1	55,984	165,401	0.1980	7,100	7,450	293	526	2,989	5,950	5,534	422,851	58.1	
MAY	4808	285,940	287,419	4498	4840	272,836	478,134	60.1	55,794	166,811	0.2465	7,100	7,450	339	525	4,800	6,640	5,540	484,774	60.8	
JUNE	4861	312,250	313,627	4605	4923	311,167	478,065	65.6	55,623	167,447	0.3427	7,100	7,565	329	527	5,119	6,775	5,642	484,840	66.2	
JULY	4868	355,227	356,414	4655	5010	344,881	485,297	73.4	55,887	169,197	0.4342	7,100	7,447	353	533	5,357	6,402	5,522	491,699	74.0	
AUG.	4971	315,087	316,179	4845	5144	322,794	502,060	63.0	57,010	173,862	0.3173	8,090	8,751	354	538	5,507	6,527	6,562	508,587	63.9	
SEPT.	5111	301,914	302,758	4969	5280	304,481	523,305	57.9	57,707	179,185	0.2635	9,540	9,887	357	540	4,942	6,527	6,562	529,832	59.0	
OCT.	5240	341,710	342,815	5085	5387	342,060	546,470	62.8	58,426	185,104	0.3208	9,860	9,887	362	559	5,293	6,527	6,562	552,997	63.8	
NOV.	5334	352,110	354,081	5151	5473	348,951	602,741	58.7	55,420	190,874	0.2965	9,620	9,827	333	570	5,150	7,287	6,582	610,028	59.7	
DEC.	5519	347,145	348,483	5189	5560	344,393	623,092	55.9	61,828	197,918	0.2660	9,850	9,827	322	578	4,536	7,287	6,582	630,379	56.8	
AVERAGE	4949	306,739	308,182	4725	5048	304,592	485,570	63.5	56,883	172,681	0.3137	7,999	8,291	334	539	4,846	6,485	5,818	492,055	64.3	
1956																					
JAN.	5608	379,680	380,806	5277	5678	373,824	622,822	61.1	62,652	201,642	0.3178	8,650	8,507	305	583	4,806	7,287	6,582	630,109	61.8	
FEB.	5676	404,552	405,884	5361	5775	398,637	632,080	64.2	61,834	203,644	0.3521	8,250	7,307	324	585	5,097	8,137	6,582	640,217	64.5	
MAR.	5749	385,395	393,549	5480	5880	392,851	640,211	61.5	59,305	203,343	0.3245	8,375	7,632	322	585	5,041	8,612	4,882	648,823	61.8	
APR.	5889	336,422	348,483	5376	5904	335,699	661,812	52.7	58,423	207,229	0.2141	8,735	8,023	272	585	3,427	9,012	4,882	670,824	53.1	
MAY	5943	316,990	318,580	5573	5994	316,164	652,260	48.8	58,615	208,697	0.1824	8,174	8,032	361	586	5,662	9,012	4,882	661,272	49.3	
JUNE	6010	364,310	365,682	5715	6134	365,026	655,763	55.4	60,479	212,938	0.2526	9,025	7,732	358	579	6,205	8,712	4,882	668,475	55.9	
JULY	6160	396,160	398,133	5874	6268	381,030	670,751	59.4	62,141	220,125	0.2892	10,225	8,232	375	577	6,825	9,212	4,882	679,963	59.8	
AUG.	6280	437,486	439,966	6036	6401	431,363	683,827	64.3	62,108	224,883	0.3419	10,225	8,732	343	580	5,916	9,712	4,882	693,539	64.7	
SEPT.	6408	410,702	412,699	6144	6521	411,081	697,721	59.1	63,329	230,323	0.2843	10,225	9,232	402	585	6,912	10,212	4,882	707,933	59.6	
OCT.	6500	401,986	403,639	6270	6619	404,930	711,152	56.8	63,274	234,272	0.2588	10,725	9,232	413	584	7,979	10,212	4,882	721,364	57.2	
NOV.	6590	402,267	403,584	6322	6706	408,764	724,435	55.7	63,641	237,772	0.2489	10,725	9,282	415	592	6,940	10,262	4,882	734,697	56.2	
DEC.	6683	437,171	439,192	6335	6791	428,015	735,488	59.7	64,197	242,036	0.2906	10,725	9,282	408	599	6,109	10,262	4,882	745,750	60.1	
AVERAGE	6125	389,418	392,512	5814	6223	387,282	674,360	58.2	61,667	218,909	0.2798	9,505	8,436	358	585	5,910	9,220	5,165	683,580	58.7	



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(QUANTITIES IN BARRELS PER DAY)

YEAR & MONTH	EST. AVE. No. OF WELLS	LIGHT AND MEDIUM OIL										HEAVY OIL							TOTAL PROVINCIAL POTENTIAL	TOTAL \$ ALLOW OF POT.
		DEMAND	ALLOWABLE	WELLS ACTUALLY PRODUCED	WELLS CAPABLE OF PRODUCT- ION	PRODUCTION	ADJUSTED POTENTIAL	\$ ALLOW OF POT.	MARGINAL	ECONOMIC & MARGINAL	ALLOCA. FACTOR	DEMAND	ALLOW- ABLE	WELLS ACT- UALLY PROD.	WELLS CAP- ABLE OF PROD.	PRODUCT- ION	ADJUST. POTENT	ECONOMIC		
1957																				
JAN.	6,772	430,907	432,590	6,406	6,860	435,731	734,124	58.9	63,893	244,920	0.2775	10,725	9,782	392	602	6,111	10,762	4,882	744,886	59.4
FEB.	6,850	418,851	420,124	6,453	6,932	412,355	742,861	56.6	63,805	248,484	0.2509	10,479	9,282	385	609	6,454	10,262	4,882	753,123	57.0
MAR.	6,819	392,975	394,602	6,532	6,911	396,320	748,088	52.7	64,078	250,473	0.2083	11,100	9,282	378	609	5,957	10,262	4,882	758,350	53.3
APR.	6,851	412,832*	414,091	6,485	6,927	400,902	742,816	55.7	60,991	250,884	0.2375	12,200	9,282	386	613	5,774	10,262	4,882	753,078	56.2
MAY	6,924	425,020	426,767	6,561	6,990	411,850	734,113	58.1	62,557	254,117	0.2545	11,725	8,917	399	613	6,555	8,917	4,341	743,030	58.6
JUNE	6,950	407,380	409,792	6,690	7,075	400,875	733,308	55.9	60,537	254,391	0.2275	10,825	8,911	415	617	6,504	8,911	4,341	742,219	56.4
JULY	7,007	408,894	408,728	6,752	7,158	412,129	733,623	55.7	61,600	257,436	0.2254	11,600	8,911	412	619	7,303	8,911	4,341	742,534	56.2
AUG.	7,120	369,566	371,423	6,794	7,205	373,961	738,009	50.3	61,937	261,715	0.1595	11,600	8,911	415	621	7,474	8,911	4,341	746,920	50.9
SEPT.	7,156	336,742	338,509	6,866	7,283	339,107	740,545	45.7	63,049	263,374	0.1083	11,300	9,091	431	624	7,861	9,661	4,521	750,206	46.3
OCT.	7,229	299,418	301,528	6,850	7,343	299,138	748,055	40.3	63,190	266,580	0.0479	10,730	9,091	419	621	10,250	9,661	4,521	757,716	41.0
NOV.	7,282	279,018	281,166	6,732	7,382	274,750	776,976	36.2	65,194	269,543	0.0133	10,600	9,265	392	622	6,005	10,266	4,665	787,242	36.9
DEC.	7,308	290,242	292,318			283,903	782,880	37.3	65,613	271,722	0.0258	8,750	9,291			5,006	10,341	4,691	793,221	33.0
AVERAGE	7,022	372,654	374,303			370,085	746,283	50.2	63,037	257,803	0.1697	10,970	9,168			6,771	9,761	4,608	756,044	50.7
1958																				
JAN.	7,353	336,147	337,833				776,783	43.5	63,707	260,058	0.1067	8,380	9,000				10,145	8,000	786,928	44.1
FEB.	7,429	359,059	359,967				777,441	46.3	62,497	261,624	0.1363	8,440	8,250				9,395	7,130	786,836	46.8

* INCLUDES 5,000 B/D TO OFFSET UNDERPRODUCTION DUE TO POSSIBLE ROAD BANS.

SUBMISSION TO THE
ROYAL COMMISSION ON ENERGY
OIL AND GAS CONSERVATION BOARD

Comparative Posted Prices of Crude Oil
as at February 1st, 1958

	<u>Price Point</u>	<u>Crude Oil Type</u>	<u>API Gravity</u>	<u>Price/Bbl.</u>
<u>Alberta</u>				
	Wellhead	Leduc-Woodbend	39°	\$2.74*
	Wellhead	Joarcam North	37°	2.60*
	Wellhead	Redwater	35°	2.63*
	Wellhead	Stettler	28°	2.23*
	Wellhead	Wizard Lake D-2 & D-3	38°	2.715*
	Wellhead	Bonnie Glen D-3	40°	2.83*
	Wellhead	Pembina	38°	2.61*
	Wellhead	Turner Valley	33-33.9°	2.55
<u>Saskatchewan</u>				
	Wellhead	Coleville	13°	1.30*
	Wellhead	Smiley	29-36°	2.40*
	Wellhead	Frobisher	36-37°	2.785*
	Wellhead	Eureka	36-37°	2.52*
	Wellhead	Steelman	35-37°	2.68*

	<u>Price Point</u>	<u>Crude Oil Type</u>	<u>API Gravity</u>	<u>Price/Bbl.</u>
<u>Manitoba</u>				
	Wellhead	Virden	33.8°	\$2.55*
	Wellhead	Daly		2.46*
<u>American</u>				
	Wellhead	Mid-Continent	36-36.9°	3.07
	Wellhead	North Dakota	36-36.9°	3.07
	Wellhead	Illinois Basin		3.00-3.15*
	Wellhead	Wyoming	36-36.9°	3.00
	Wellhead	Texas Gulf, Upper & Lower	26°	3.07-3.22
	Wellhead	East Texas	39°	3.25*
	Wellhead	Signal Hill	21-21.9°	2.93
<u>Venezuela</u>				
	Tanker	Oficina (ex Puerto la Cruz)	35-35.9°	3.05
<u>Middle East</u>				
	Tanker	Arabian (ex Sidon)	36-36.9°	2.49
	Tanker	Arabian (ex Ras Tanura)	34-34.9°	2.08

* Flat Price

Source: Petroleum Week, Imperial, B.A., Royalite and Texaco price bulletins.

Canadian Crude Oils - prices in Canadian Currency.

Other Crude Oils - prices in U.S. Currency.

THE PROVINCE OF ALBERTA

PERMIT

IN THE MATTER OF "The Gas Resources Preservation Act", being chapter 2 of the Statutes of Alberta, 1949, (Second Session) and

IN THE MATTER OF the application of Westcoast Transmission Company Limited (hereinafter called the Dominion Company) and the Westcoast Transmission Company (Alberta) Ltd. (hereinafter called the Alberta Company) for a permit authorizing them to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by them within the Province

Issued by

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

P E R M I T

IN THE MATTER OF "The Gas Resources Preservation Act",
being chapter 2 of the Statutes of Alberta, 1949 (Second Session) and

IN THE MATTER OF the application of Westcoast Transmission Company Limited (hereinafter called the Dominion Company) and the Westcoast Transmission Company (Alberta) Ltd. (hereinafter called the Alberta Company) for a permit authorizing them to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by them within the Province;

WHEREAS upon their application the applicants have complied with the relevant provisions of the aforesaid Act as so found by this Board after inquiry and hearing; and

WHEREAS the Board having found the gas permitted to be removed subject to the terms and conditions of this permit is surplus to the present and future needs of the people of the Province; and

THE Lieutenant Governor in Council having given his approval by Order in Council No. 882/52 dated the 16th day of June, A.D., 1952.

A Permit is hereby granted to the Applicants to remove or cause gas to be removed from the Province in accordance with the provisions of the aforesaid Act and upon the terms and conditions hereunder prescribed which terms and conditions are of the essence of this Permit.

1. Subject to conformity by the Permittees and each of them with the terms and conditions hereof this Permit shall be for a period of twenty-two (22) years from its date.
2. Only the Dominion Company may remove gas or cause it to be removed from the Province.
3. The Dominion Company may remove or cause to be removed only such gas as it may acquire from the Alberta Company.

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862.

The President's message is a long and detailed one, covering a wide range of subjects. It begins with a discussion of the state of the Union, and then goes on to discuss the various measures which have been taken by the Executive branch of the Government during the past year.

The President then discusses the various measures which have been taken by the Executive branch of the Government during the past year. He then discusses the various measures which have been taken by the Executive branch of the Government during the past year.

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The President then discusses the various measures which have been taken by the Executive branch of the Government during the past year. He then discusses the various measures which have been taken by the Executive branch of the Government during the past year.

4. The Alberta Company may produce, purchase or otherwise acquire for delivery to the Dominion Company only gas produced within the area in the Province bounded on the West by the Alberta-British Columbia boundary, on the South by the northern boundary of Township Sixty-eight (68), on the East by Range Fifteen (15), West of the Fifth (5) Meridian, and on the North by the southern boundary of Township Ninety (90).
5. The Alberta Company shall deliver gas to the Dominion Company at a location in Alberta, not further than three miles from the Alberta-British Columbia border, to be approved by this Board.
6. Of the Permittees only the Alberta Company shall own, construct, maintain or operate gathering, transmission and distribution lines within the Province; provided, however, that the foregoing shall not apply to that portion of the main transmission line extending West to the British Columbia border from the location at which the Dominion Company takes delivery of gas.
7. Neither the Permittees nor either of them shall remove or cause to be removed any gas from the Province unless by the 31st day of December, 1953, they shall have satisfied this Board that a pipe line has been constructed and gas made available to adequately supply the communities of Grande Prairie, Clairmont, Sexsmith, Webster, Woking, Esher, Rycroft and Spirit River.

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8. The effective commencement of the removal of gas from the Province shall be on or before the 31st day of December, 1954.
9. During the first five (5) years from the date of the first removal of gas from the Province the total amount of gas which is removed or caused to be removed shall not exceed 210 billion standard cubic feet provided however that:
 - (a) the total amount of gas removed or caused to be removed in any such one year shall not exceed 42 billion standard cubic feet and
 - (b) the total amount of gas removed or caused to be removed during any 24 hour period shall not exceed 165 million standard cubic feet.During the remaining years of this permit the amount of gas which may be removed or caused to be removed shall be as fixed by orders of this Board pursuant to the provisions of Section 10 of The Gas Resources Preservation Act.
10. All gas delivered by the Alberta Company to the Dominion Company shall be measured at the point of delivery by a master meter approved by the Board.
11. The Alberta Company shall supply gas at a reasonable price to any community or consumer within the Province that is willing to take delivery of gas at such

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reasonable price from a point on the Company's pipe line and that, in the opinion of the Board, can reasonably be supplied by the Company's line.

12. Notwithstanding the provisions hereof the Permittees and each of them shall comply with the provisions of any Act, competent regulation, order or direction governing the drilling for, the production, conservation, gathering, transportation, processing, purchasing, acquisition, sale, measurement, supply and delivery of gas within the Province; provided that without limiting the generality of this section the Board, with the approval of the Lieutenant Governor in Council, may require the Alberta Company to extract or cause to be extracted any substances except methane from any gas before it is delivered by the said Alberta Company to the Dominion Company.

DATED at the City of Calgary, in the Province of Alberta, this 16th day of June, A. D., 1952.

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Chairman

1. The first part of the report

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25. The twenty-fifth part of the report

THE PROVINCE OF ALBERTA

PERMIT

IN THE MATTER OF The Gas Resources Preservation Act, being Chapter 2 of The Statutes of Alberta, 1949, (Second Session) and

IN THE MATTER OF the application of Trans-Canada Pipe Lines Limited, (hereinafter called "Trans-Canada"), for a permit authorizing it to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by Trans-Canada within the Province.

Issued By

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

May 14th, 1954.

(Amended to May 23rd, 1957)

P E R M I T

IN THE MATTER OF The Gas Resources Preservation Act, being Chapter 2 of The Statutes of Alberta, 1949, (Second Session) and

IN THE MATTER OF the application of Trans-Canada Pipe Lines Limited, (hereinafter called "Trans-Canada"), for a permit authorizing it to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by Trans-Canada within the Province

WHEREAS upon its application Trans-Canada has complied with the relevant provisions of the aforesaid Act, as so found by this Board after enquiry and hearing; and

WHEREAS the Board having found the gas permitted to be removed, subject to the terms and conditions of this Permit, to be surplus to the present and future needs of the Province; and

The Lieutenant Governor in Council having given his approval by Order in Council No. 701/54 dated the 13th day of May, A. D., 1954;

A Permit is hereby granted to Trans-Canada to remove gas or cause gas to be removed from the Province in accordance with the provisions of the aforesaid Act and upon the terms and conditions hereunder prescribed, which terms and conditions are of the essence of this Permit.

1. Subject to conformity by Trans-Canada with the terms and conditions hereof, this Permit shall be for a period of twenty-seven (27) years from its date.

THEORY

The first part of the theory is the definition of the system. The system is defined as a set of elements that are connected by a set of relations. The elements are represented by nodes and the relations are represented by edges.

The second part of the theory is the definition of the system's behavior. The behavior is defined as the set of states that the system can reach from a given initial state. The states are represented by nodes and the transitions between states are represented by edges.

The third part of the theory is the definition of the system's properties. The properties are defined as the set of conditions that must be satisfied for the system to be in a given state. The properties are represented by nodes and the transitions between properties are represented by edges.

The fourth part of the theory is the definition of the system's structure. The structure is defined as the set of elements that are connected by a set of relations. The elements are represented by nodes and the relations are represented by edges.

The fifth part of the theory is the definition of the system's dynamics. The dynamics are defined as the set of rules that govern the system's behavior. The rules are represented by nodes and the transitions between rules are represented by edges.

The sixth part of the theory is the definition of the system's control. The control is defined as the set of actions that can be taken to change the system's state. The actions are represented by nodes and the transitions between actions are represented by edges.

The seventh part of the theory is the definition of the system's optimization. The optimization is defined as the set of methods that can be used to find the best solution to a given problem. The methods are represented by nodes and the transitions between methods are represented by edges.

The eighth part of the theory is the definition of the system's evaluation. The evaluation is defined as the set of criteria that can be used to assess the system's performance. The criteria are represented by nodes and the transitions between criteria are represented by edges.

2. Trans-Canada may remove or cause to be removed only such gas as is delivered to Trans-Canada through facilities of The Alberta Gas Trunk Line Company.
3. Trans-Canada shall take delivery of gas from The Alberta Gas Trunk Line Company at a location in Alberta to be approved by the Board.
4. The quantity of gas to be removed by Trans-Canada shall not be more than six hundred and twenty million (620,000,000) cubic feet in any one (1) day, nor more than two hundred and ten billion (210,000,000,000) cubic feet in any consecutive twelve (12) month period, nor more than four trillion, three hundred and fifty billion (4,350,000,000,000) cubic feet during the period of the Permit; the above quantities all being referred to a 14.4 psia. pressure base and a 60° F. temperature base.

(Amended on October 31, 1955 and May 23, 1957)

5. Subject to clause 4 of this Permit, Trans-Canada may produce, purchase or otherwise acquire for transport through the facilities of The Alberta Gas Trunk Line Company Limited and for removal from the Province
 - (a) gas from the following fields as defined by the appropriate subsisting Orders of the Board:

Atlee-Buffalo

Bindloss

Cessford

Countess

Duchess

Gilby

Hamilton Lake

Kessler

Oyen

Pincher Creek

Princess

Provost

Sibbald

Sylvan Lake;

and

(b) gas in a total amount not to exceed nine hundred billion (900,000,000,000) cubic feet from the following fields as defined by the appropriate subsisting Orders of the Board:

Erskine

Fenn-Big Valley

Homeglen-Rimbey

Nevis

Stettler

subject to the approval of the Board of the total and the daily amountsof gas to be withdrawn by or on behalf of Trans-Canada from each of the said fields;

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provided, however, that if on April 30, 1956, Trans-Canada has not satisfied the Board that it owns or has contracted to purchase or otherwise acquire significant quantities of gas from any field listed in parts (a) or (b) of this clause, the Board, without notice or hearing, may amend this Permit by deleting herefrom such field.

(Amended on October 31, 1955.)

6. Notwithstanding the provisions of Section 5 or of any contract for the purchase or other acquisition of any gas, the Board may authorize or direct that Trans-Canada purchase or otherwise acquire for transport through facilities of The Alberta Gas Trunk Line Company and for removal from the Province, in lieu of any gas referred to in Section 5, other gas which reasonably and economically, in the opinion of the Board, may be utilized for the requirements of Trans-Canada.
7. Notwithstanding the provisions of Section 5 or of any contract for the purchase or other acquisition of any gas, the Board may require the extraction of any substance or substances except methane from any gas before it is removed or caused to be removed by Trans-Canada from the Province.
8. Trans-Canada shall satisfy the Board prior to April 2, 1957, that arrangements have been completed for financing the construction of its

proposed project and that construction will commence not later than June 30, 1957, unless upon application by Trans-Canada the aforesaid dates are extended by the Board.

(Amended on October 31, 1955, February 23, 1956 and August 24, 1956.)

9. The effective commencement of the removal of gas from the Province under the terms and conditions of this Permit shall be on or before the 31st day of December, 1957, unless upon application by Trans-Canada, the said date is extended by the Board.

(Amended on October 31, 1955 and February 23, 1956.)

- 9a. Notwithstanding the provisions contained in sections 8 and 9 hereof, Trans-Canada may, during the period of this Permit, remove from the Province gas produced, purchased or otherwise acquired by Trans-Canada from the fields referred to in section 5, or any of them in such quantities, being not greater than the quantities authorized by this Permit, as may be necessary to supply markets that may be served during the period of this Permit from points on the transmission line to be constructed by Trans-Canada from the location in Alberta at which Trans-Canada shall take delivery of gas to the City of Winnipeg in Manitoba.

(Amendment of June 5, 1956 - amended on August 24, 1956.)

10. All gas received by Trans-Canada through facilities of The Alberta Gas Trunk Line Company shall be measured by Trans-Canada at the point of receipt by a master meter approved by the Board.
11. The specific gravity and higher heating value of all gas received by Trans-Canada through facilities of The Alberta Gas Trunk Line Company shall be measured by Trans-Canada at the point of receipt and in a manner approved by the Board.
12. Notwithstanding the provisions hereof, Trans-Canada shall comply with the provisions of any Act, competent regulation, order or direction governing the drilling for, the production, conservation, gathering, transportation, processing, purchasing, acquisition, sale, measurement, reporting, testing, supply and delivery of gas within the Province.

The Board with the approval of the Lieutenant Governor in Council may cancel this Permit if Trans-Canada fail to comply with any of the terms and conditions set forth in clauses one to eleven inclusive or for any wilful failure to comply with any of the terms and conditions of clause 12 hereof.

DATED at the City of Calgary, in the Province of Alberta, this 14th day of May, A.D., 1954.

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD,

I. N. McKinnon, Chairman.

THE PROVINCE OF ALBERTA

PERMIT

IN THE MATTER OF The Gas Resources Preservation Act, being Chapter 2 of The Statutes of Alberta, 1949, (Second Session) and

IN THE MATTER OF the application of Westcoast Transmission Company Limited (hereinafter called the "Dominion Company") and the Westcoast Transmission Company (Alberta) Ltd. (hereinafter called the "Alberta Company") for a permit authorizing them to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by them within the Province.

Issued By

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

June 16th, 1952

(Amended to September 19th, 1956)

P E R M I T

IN THE MATTER OF The Gas Resources Preservation Act, being Chapter 2 of The Statutes of Alberta, 1949, (Second Session) and

IN THE MATTER OF the application of Westcoast Transmission Company Limited (hereinafter called the "Dominion Company") and the Westcoast Transmission Company (Alberta) Ltd. (hereinafter called the "Alberta Company") for a permit authorizing them to remove or cause to be removed from the Province of Alberta, gas produced, purchased or otherwise acquired by them within the Province

WHEREAS upon their application the applicants have complied with the relevant provisions of the aforesaid Act as so found by this Board after enquiry and hearing; and

WHEREAS the Board having found the gas permitted to be removed subject to the terms and conditions of this Permit is surplus to the present and future needs of the people of the Province; and

THE Lieutenant Governor in Council having given his approval by Order in Council No. 882/52 dated the 16th day of June, A. D., 1952;

A Permit is hereby granted to the Applicants to remove or cause gas to be removed from the Province in accordance with the provisions of the aforesaid Act and upon the terms and conditions hereunder prescribed which terms and conditions are of the essence of this Permit.

1. Subject to conformity by the Permittees and each of them with the terms and conditions hereof, this Permit shall be for a period from June 16th, 1952 to December 31st, 1979.

(Amended December 20, 1954 and February 17th, 1956)

2. Only the Dominion Company may remove gas or cause it to be removed from the Province.
3. The Dominion Company may remove or cause to be removed only such gas as it may acquire from the Alberta Company.
4. (Deleted by amendment dated May 3, 1955)
5. The Alberta Company shall deliver gas to the Dominion Company at a location in Alberta, not further than four miles from the Alberta-British Columbia border, to be approved by this Board.

(Amended February 17th, 1956)

6. Of the Permittees only the Alberta Company shall own, construct, maintain or operate gathering, transmission and distribution lines within the Province; provided, however, that the foregoing shall not apply to that portion of the main transmission line extending West to the British Columbia border from the location at which the Dominion Company takes delivery of gas.
7. Neither the Permitttees nor either of them shall remove or cause to be removed any gas from the Province unless by the 31st day of December, 1953, they shall have satisfied this Board that a pipe line has been constructed and gas made available to adequately

supply the communities of Grande Prairie,
Clairmont, Sexsmith, Webster^{*}, Woking,
Esher, Rycroft and Spirit River.

(^{*} - "Webster" deleted by amendment dated
December 29, 1953, subject to the
following terms and conditions)

1. The Permittees shall provide a five
hundred (500) gallon propane storage
tank, rent free, to any person residing
in the Hamlet of Webster as at December
31st, 1953, who intends to use propane
for fuel purposes in his home or place
of business, provided application in
writing therefor is made to the West-
coast Transmission Company (Alberta) Ltd.
at its registered office, 700 Petroleum
Building, Calgary, on or before March 31st,
1954;
2. Without restricting the generality of
Section 1 hereof, the Permittees shall
provide a five hundred (500) gallon
propane storage tank, rent free, to any
church or community organization which,
as at December 31st, 1953, owns or rents
a building and who intends to use propane
for fuel purposes, provided application
in writing therefor is made to the

The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles. The structure of the atom is therefore not a simple one, but a complex one, which is determined by the laws of quantum mechanics.

The second part of the paper is devoted to a discussion of the structure of the nucleus. It is shown that the structure of the nucleus is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles. The structure of the nucleus is therefore not a simple one, but a complex one, which is determined by the laws of quantum mechanics.

The third part of the paper is devoted to a discussion of the structure of the molecule. It is shown that the structure of the molecule is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles. The structure of the molecule is therefore not a simple one, but a complex one, which is determined by the laws of quantum mechanics.

The fourth part of the paper is devoted to a discussion of the structure of the crystal. It is shown that the structure of the crystal is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles. The structure of the crystal is therefore not a simple one, but a complex one, which is determined by the laws of quantum mechanics.

Westcoast Transmission Company (Alberta) Ltd. at its registered office, 700 Petroleum Building, Calgary, on or before March 31st, 1954;

3. The Permittees shall not be required to provide more than one (1) five hundred (500) gallon storage tank for each house or building in the Hamlet of Webster and in the event that there is any dispute as to who is entitled to one (1) of the aforesaid storage tanks, the matter shall be referred to the Board and its decision shall be final; and
4. If, after any storage tank has been provided to the applicant therefor, the Permittees prove the existence of circumstances which in the opinion of the Board constitute reasonable cause for the removal of the said tank, the Board may approve such removal.
8. (a) The Permittees shall satisfy the Board prior to the 30th day of November, 1955 that arrangements have been completed for financing the construction of their proposed project and that construction has commenced.

(Amended December 20th, 1954 and
July 14th, 1955)

Schedule may be altered by the Board on its own motion or upon application, if in the Board's opinion such alteration may be made without adverse effect on the supply of gas available to meet the requirements of the Peace River area of the Province or of the Alberta Company;

- (ii) gas from the Pouce Coupe Field (as defined by the appropriate subsisting Order of the Board) subject to the restriction that reserves, adequate in the opinion of the Board, shall be allowed to remain in the Pouce Coupe Field to permit deliveries to Dawson Creek, B. C. at a maximum annual rate of six hundred million (600,000,000) cubic feet and at a maximum daily rate of six million (6,000,000) cubic feet until July 13th, 1980;
- (iii) gas from the Hamelin Creek, Whitelaw and Tangent Fields (as defined by the appropriate subsisting Order of the Board) subject to the restriction that reserves, adequate in the opinion of the Board, shall be allowed to

remain in these fields to meet the requirements of the Peace River area of the Province, not only during the period of the Permit, but until December 31st, 1984.

- (iv) gas from the Pouce Coupe South Field (as designated by the appropriate subsisting Order of the Board) subject to the restriction that reserves shall allowed to remain in the Pouce Coupe South Field adequate to permit deliveries to Dawson Creek, B.C., at a maximum annual rate of one billion (1,000,000,000) cubic feet and at a maximum daily rate of seven million (7,000,000) cubic feet until September 30th, 1976; and
- (v) gas from the Sturgeon Lake and Sturgeon Lake South Fields (as designated by the appropriate subsisting Orders of the Board) and from the Sturgeon Lake Area (as may be defined from time to time by the Board), subject to the restriction that reserves, adequate in the opinion of the Board, shall be allowed to remain in these fields and area to meet the needs of consumers within the Province,

that in the opinion of the Board can be reasonably supplied therefrom, not only during the period of the Permit, but until December 31st, 1984.

(Amended May 3, 1955 and September 19, 1956.)

10. All gas delivered by the Alberta Company to the Dominion Company shall be measured at the point of delivery by a master meter approved by the Board.
11. The Alberta Company shall supply gas at a reasonable price to any community or consumer within the Province that is willing to take delivery of gas at such reasonable price from a point on the Company's pipe line and that, in the opinion of the Board, can reasonably be supplied by the Company's line.
12. Notwithstanding the provisions hereof the Permittees and each of them shall comply with the provisions of any Act, competent regulation, order or direction governing the drilling for, the production, conservation, gathering, transportation, processing, purchasing, acquisition, sale, measurement, supply and delivery of gas within the Province;

Provided that without limiting the generality of this section the Board, with the approval of the Lieutenant Governor in Council, may require the Alberta Company to extract or cause to be extracted any substances except methane from any gas before it is delivered by the said Alberta Company to the Dominion Company.

DATED at the City of Calgary, in the Province of Alberta, this 16th day of June, A.D., 1952.

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD,

I. N. McKinnon, Chairman.

SCHEDULE "A"

Pool, Field or Area as Defined by the
Appropriate Subsisting Order of the Board

Belloy
Braeburn
Dixonville
Dunvegan
Eaglesham
Gordondale
Little Smokey Lake
Little Smokey River
Normandville
Phil Can
Saddle Hills
Three Creeks
Valleyview

The appropriate subsisting Order of the Board would include proven extensions of any defined pool, field of area.

(Amendment - May 3, 1955. Amended on
September 19, 1956.)

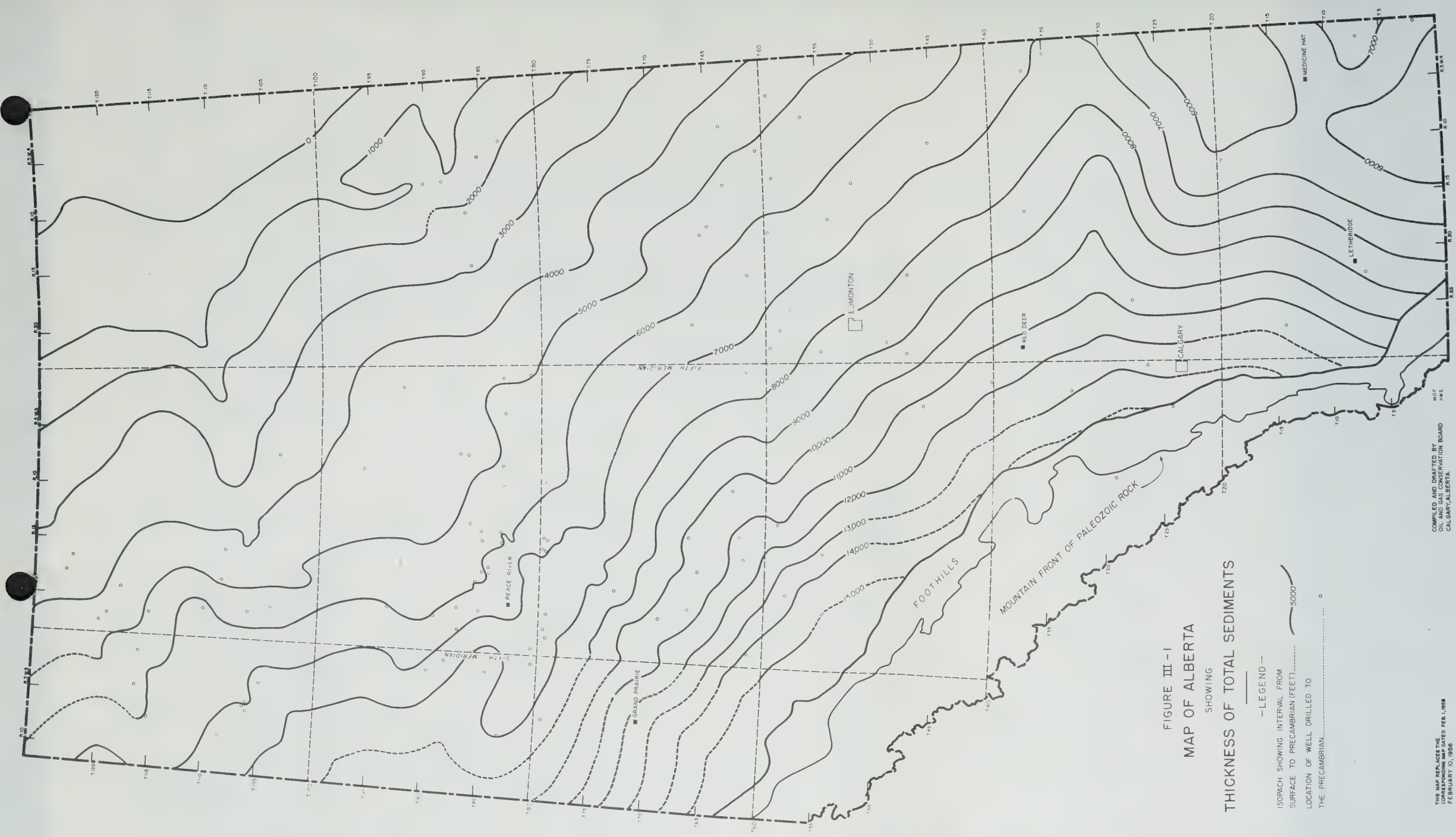


FIGURE III - I
MAP OF ALBERTA
SHOWING
THICKNESS OF TOTAL SEDIMENTS

—LEGEND—
ISOPACH SHOWING INTERVAL FROM
SURFACE TO PRECAMBRIAN (FEET)
LOCATION OF WELL DRILLED TO
THE PRECAMBRIAN.....

THIS MAP REPLACES THE
PREVIOUS EDITION DATED FEB. 1, 1958
FEBRUARY 10, 1959

COMPILED AND DRAFTED BY
OIL AND GAS CONSERVATION BOARD
CALGARY, ALBERTA.

FIGURE III-4

GEOLOGICAL DISTRIBUTION OF VIRGIN RECOVERABLE
OIL AND CONDENSATE RESERVES
FOUND IN ALBERTA PRIOR TO DEC. 31, 1957

COMPILED ON THE BASIS OF RESERVE EVALUATIONS
COMPLETED BY THE
OIL AND GAS CONSERVATION BOARD

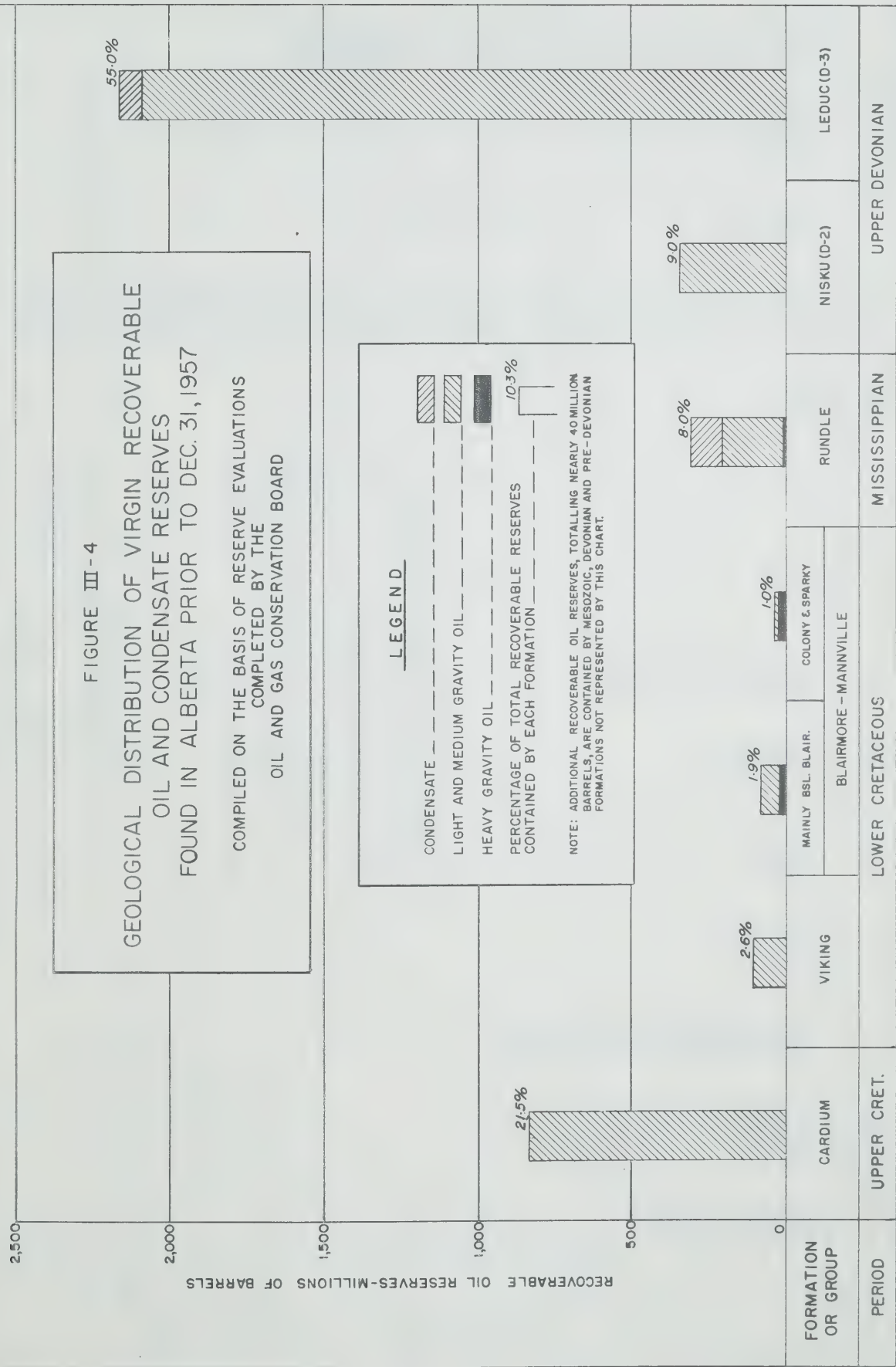
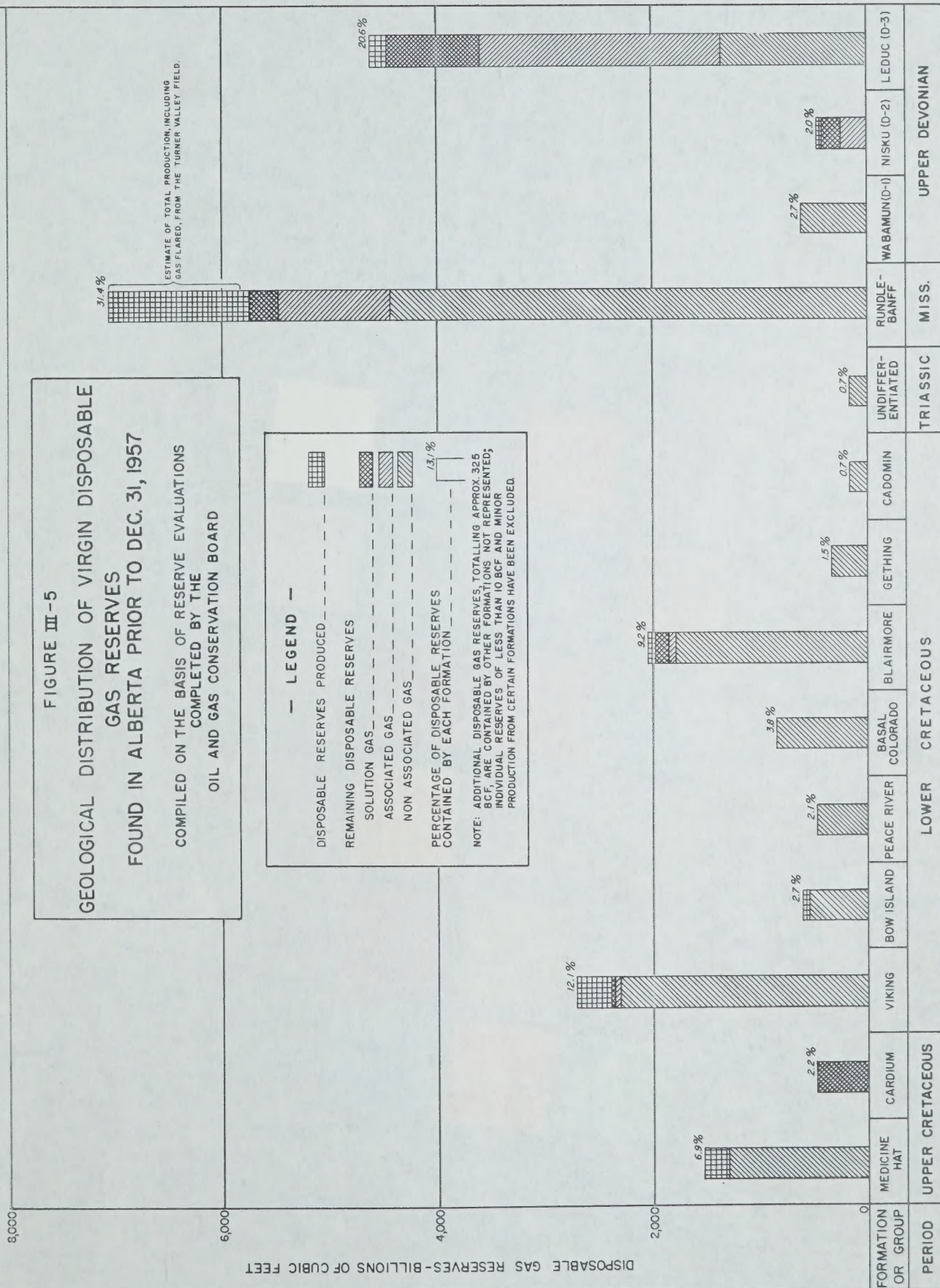
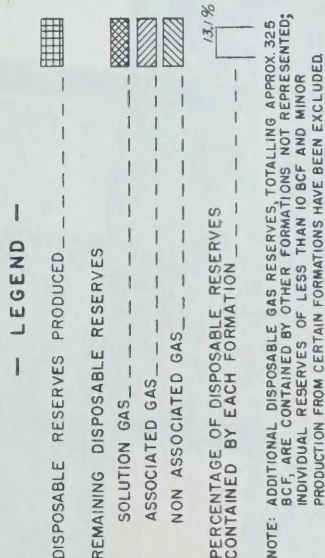
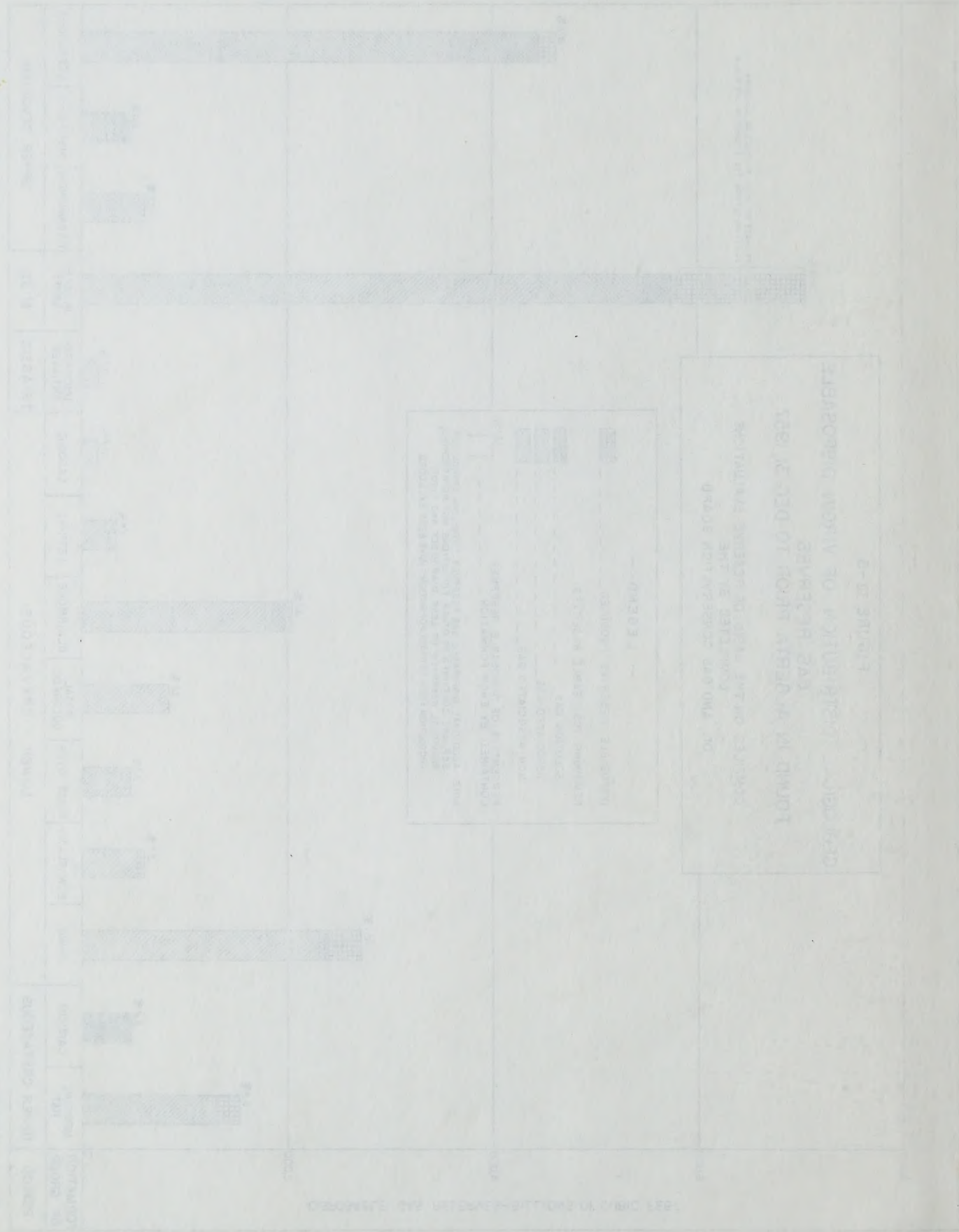


FIGURE III-5
GEOLOGICAL DISTRIBUTION OF VIRGIN DISPOSABLE
GAS RESERVES
FOUND IN ALBERTA PRIOR TO DEC. 31, 1957

COMPILED ON THE BASIS OF RESERVE EVALUATIONS
COMPLETED BY THE
OIL AND GAS CONSERVATION BOARD

DISPOSABLE GAS RESERVES-BILLIONS OF CUBIC FEET





PERCENTAGE OF RESPONDENTS BY RACE AND ETHNICITY FOR EACH CATEGORY

Legend:

- ALL (White)
- WHITE (Black)
- BLACK (Hispanic)
- HISPANIC (Other)

Category: OTHER

Percentage: 100%

PERCENTAGE OF RESPONDENTS BY RACE AND ETHNICITY FOR EACH CATEGORY

Legend:

- ALL (White)
- WHITE (Black)
- BLACK (Hispanic)
- HISPANIC (Other)

Category: OTHER

Percentage: 100%

